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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,717

12/22/2005

Alessandro Pontiggia

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EXAMINER

DUFF, DOUGLAS J

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

06/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/561,717

Applicant(s)

PONTIGGIA, ALESSANDRO

Examiner

Douglas J. Duff

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 1-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/22/05.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-15 are objected to because of the following informalities: the two axes as claimed are not distinguishable from each other within the claim. It is suggested by the Examiner to designate a first axis and second axis corresponding to the two axes claimed. Claims must be definite without reference numerals. Appropriate correction is required.
2. Claim 11 is objected to because of the following informalities: "the rigid rings" lack antecedent basis. Claim 11 should be amended to be dependent upon claim 8 or "the rigid rings" should be amended to "rigid rings". Appropriate correction is required.
3. Claim 15 is objected to because of the following informalities: the three ports as claimed are not distinguishable from each other within the claim. Applicant is suggested by the Examiner to designate a first port, a second port and a third port corresponding to the three ports claimed. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 and 7-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Werle (US 1899374). Regarding claim 1, Werle discloses a rotary engine comprising

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two components, namely a stator (102), and a rotor (109) torsionally rigid with an output shaft (105), of said stator and said rotor, a first component (102) presenting a chamber the surface of which presents circular symmetry about an axis of said first component (Fig. 7), and a second component (110) being formed from a body which is disposed in the interior of said chamber, and of which the envelope presents circular symmetry about an axis of said second component (Fig. 7), said envelope being similar to said chamber, said axes being fixed, mutually parallel and non-aligned, one of said components rotating about its axis, the first component being a stator (102) and the second component being a rotor having a body (110) torsionally rigid with the output shaft (105), the axis about which the envelope presents circular symmetry being a rotor axis of rotation, said axis being eccentric to the stator axis, the body presenting surface recesses acting as guides for seal means (116) which slide along the surface (119) of the chamber as the body rotates, and which together with the surface of the body and of the chamber define sealed chambers, said chambers sliding relative to the surface of the stator chamber as the output shaft rotates, wherein the seal means are split rings (116, Fig. 7).

6. Regarding claims 2-5, Werle discloses the device as described in claim 1 including the stator presenting a cylindrical cavity for housing the input shaft, seal means (116) between the cylindrical cavity housing the shaft and body, spherical stator (102) with the center on an axis and the body being substantially spherical with circular symmetry (Fig. 7).

7. Regarding claims 7-15, Werle discloses the device of claim 1 including ports on the surface of the chamber, seal means with rigid rings (116) and elastic sealing parts (117) and sliding ends of different shapes and materials (117 different shape and material than 116), the seal means urged by elastic means (33) to improve seal against the surface of the chamber, the rigid rings have means (47, 35) for discharging the centrifugal force on them, seal means (116) to ensure sealing against the walls of the surface recesses, a port (118) with valving means (117 passing port 118), where air/fuel mixture is injected via a port (115), ignition means (54), the mixture expands creating a variable drive torque on the output shaft, exhaust discharged through an exhaust port (Figs. 5 and 7).

***Claim Rejections - 35 USC § 103.***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werle in view of Saito (US 6237560). Werle discloses the device as described in the rejection of claim 1 above, but fails to disclose the recesses being 90 degrees apart and surface notches to improve engine efficiency.

10. Saito teaches a rotary machine including recesses (15-2) located 90 degrees apart (Fig. 2) and surface notches (17-1) to improve engine efficiency. It would have been obvious for a person having ordinary skill in the art at the time the invention was

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made to utilize recesses 90 degrees apart and surface notches on the rotor in order to provide a burnt gas pressure bearing surface to efficiently convert the combustion into rotational energy for the rotor (col. 2, lines 15-20).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Duff whose telephone number is (571) 272-3459. The examiner can normally be reached on M-F 7 AM - 5 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Douglas J. Duff



6/12/07

  
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